

Specifications for 4-axis Motion Control System Enclosure

A self-contained enclosure with the following components and features:

- One Galil DMC-4183 8-axis motion controller
- One Galil D4140 4-axis micro-step drive option
- 48VDC 500W (minimum) Power supply appropriate to operate controller and motor drives
- Fan with filter
- Emergency stop switch
- Enclosure inputs
 - 115VAC input with GFCI protection
 - USB connector for DMC-4183 interface
 - RJ-45 connector for DMC-4183 interface
 - Four limit switch connectors compatible with Parker Daedal part 006-1742-02
 - One 15pin D-Sub connector for Analog Inputs to controller
 - One 44pin high density D-Sub for Digital Input/Output (A-D) to controller
- Enclosure outputs
 - Four motor connectors
 - One electric brake connector for z-axis
 - 16 BNC connections with labels for step and direction pulse output from all 8 axes
 - Step and Direction outputs configured for TTL (0-5V)
- Operational temp from 60 to 90 degrees F

Specifications for 3-axis Motion Control System

3-axis high-speed gantry-style linear stages with the following components and features:

- 4 linear stages assembled in a 3-axis X, YY, Z configuration with integral cable management
- Each primary axis will be driven with a 2-phase stepper motor operated in open-loop step mode
- Each primary axis will have normally closed PNP forward and reverse limit switches
- X stage
 - Belt driven with assembled velocity equal or greater than 0.5 meter per second
 - 1550 mm stroke
 - Reinforce profile with IP54 covers
 - Standard single carriage
 - Suitable 2-phase nema 34 stepper with 3:1 gearhead with ≥ 5 m cable
- YY stage
 - 2 Belt driven rails connected via a common drive shaft located 1932 mm apart on center
 - 1000 mm stroke
 - Profile rail with strip seal
 - Standard single carriages
 - Suitable 2-phase nema 34 stepper with 10:1 gearhead with ≥ 3 m cable
- Z stage
 - Ball Screw (5 mm pitch) driven

- 400 mm stroke
- Profile rail with IP54 covers
- Standard single carriage
- Suitable 2-phase nema 34 stepper with brake with $\geq 7\text{m}$ cable

One day on-site support and service.

Configuration guidelines, gray structure is Government Furnished Equipment (GFE), 48 inches tall, and control system enclosure will be placed adjacent to it

